

FIG. 1

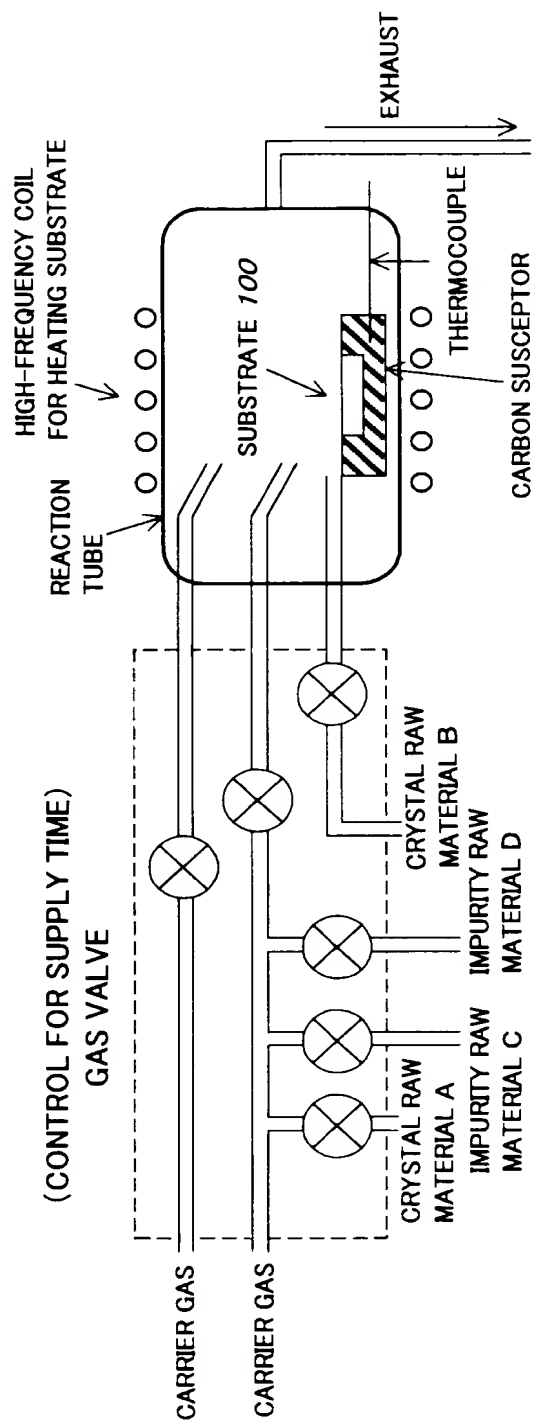


FIG. 2

SEQUENCE OF PULSE FOR RAW MATERIAL SUPPLY

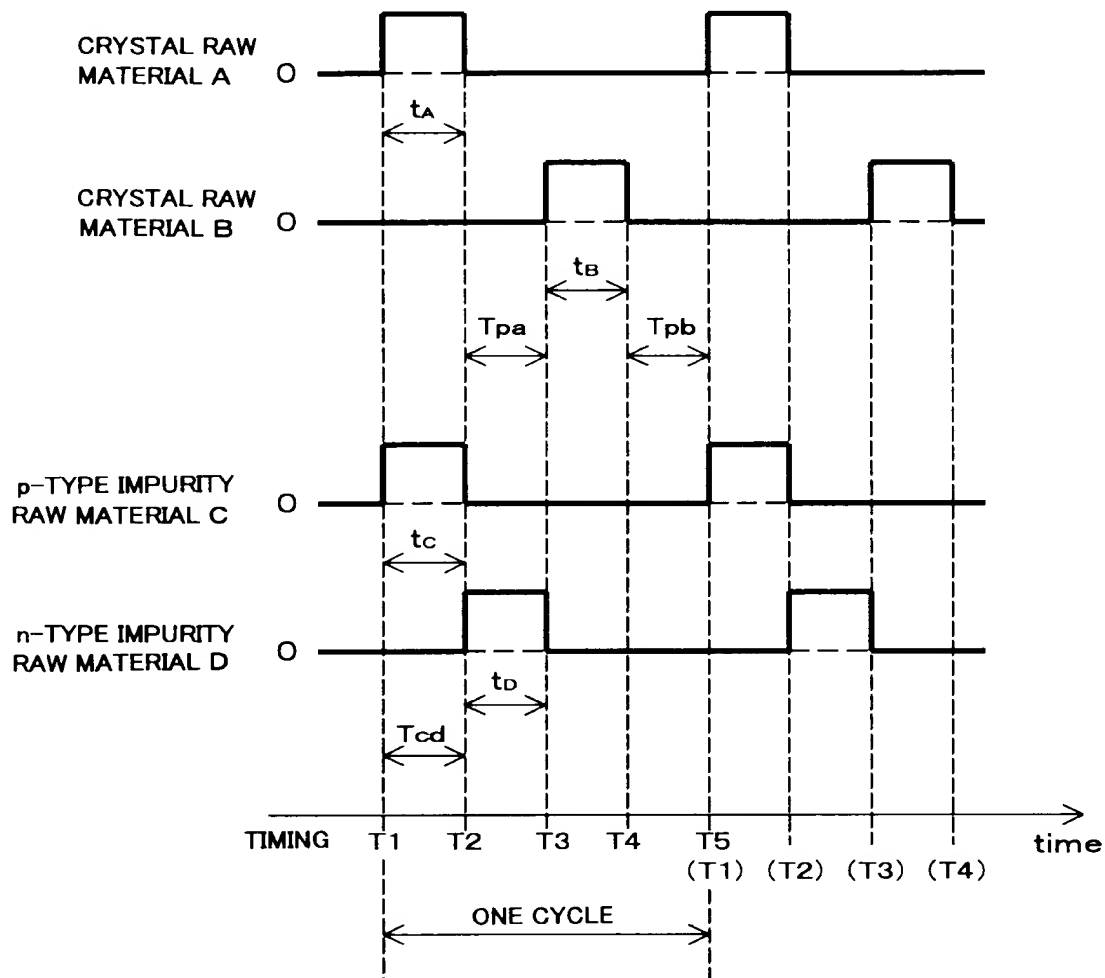


FIG. 3

SCHEMATIC VIEW SHOWING SECTION OF A-B CRYSTAL
ALLOWED TO GROW BY SIMULTANEOUS DOPING OF
IMPURITIES C AND D

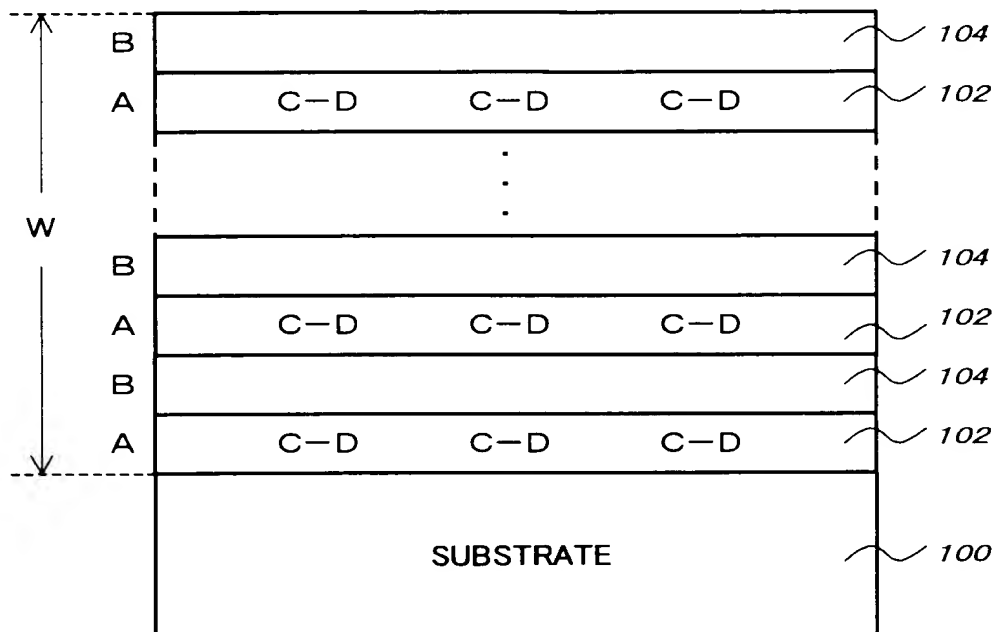


FIG. 4

MOCVD SYSTEM FOR GaN CRYSTAL GROWTH 10
(METALORGANIC CHEMICAL VAPOR PHASE EPITAXY)

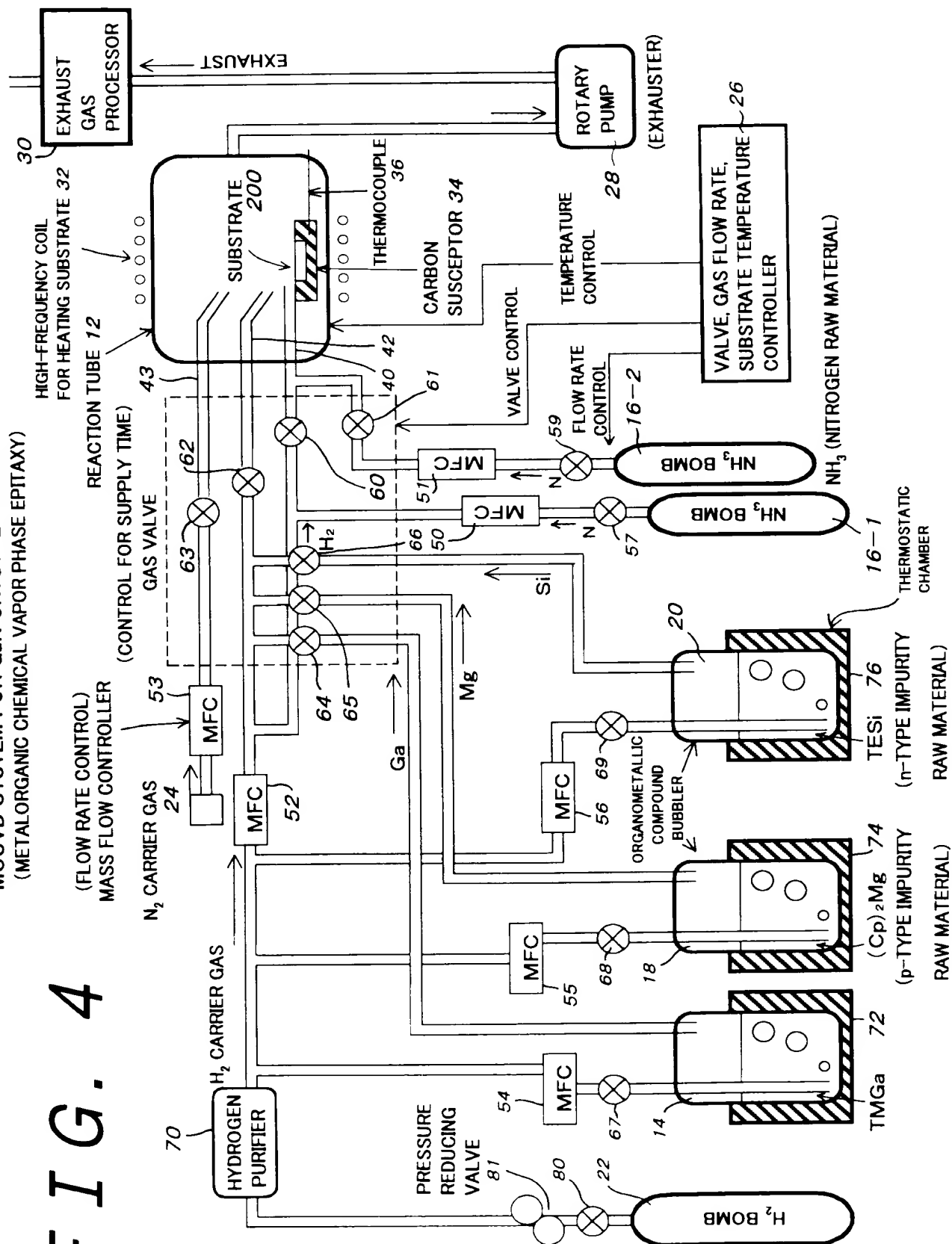


FIG. 5

MOCVD SYSTEM 10
(METALORGANIC CHEMICAL VAPOR PHASE EPITAXY)

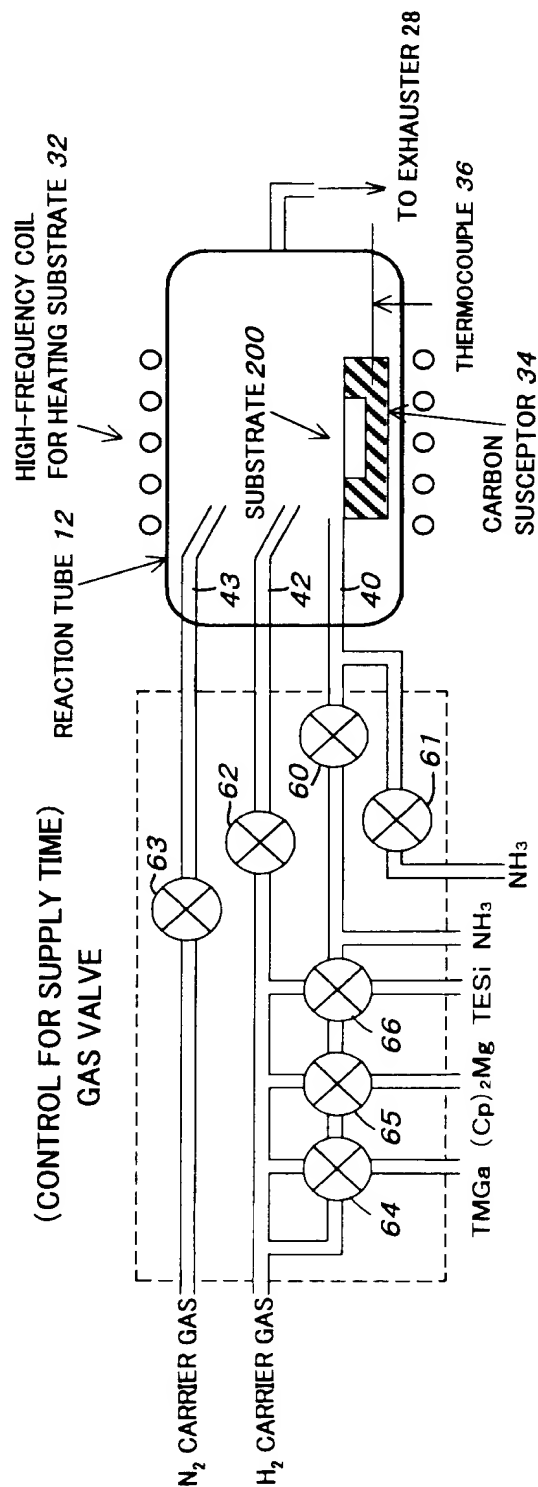
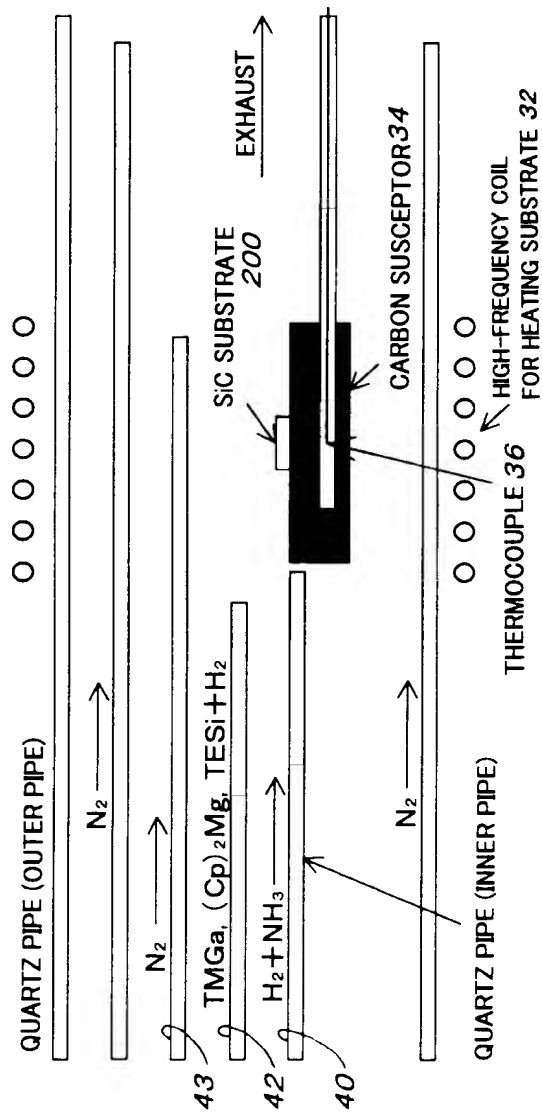


FIG. 6

SCHEMATIC VIEW OF MOCVD REACTION TUBE



(GROWTH CONDITION)

PRESSURE IN REACTION TUBE : 76 Torr,

SUBSTRATE TEMPERATURE : 950~1, 150°C

H_2 GAS FLOW RATE : TWO TO FIVE LITER/MINUTE

N_2 GAS FLOW RATE : ONE TO THREE LITER/MINUTE

NH_3 GAS FLOW RATE : ONE LITER/MINUTE

SEQUENCE OF PULSE FOR RAW MATERIAL SUPPLY

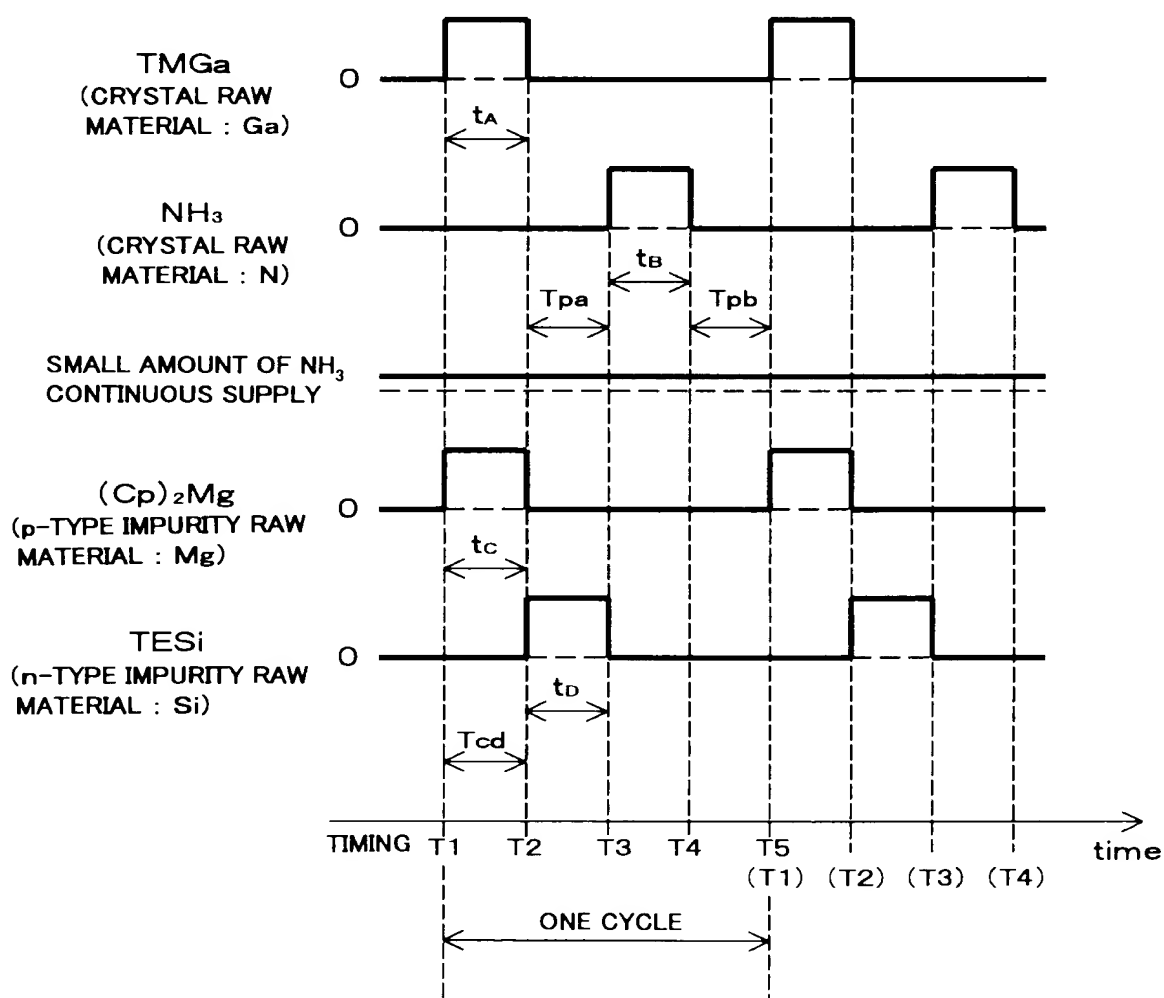


FIG. 9

POSITIVE HOLE CONCENTRATION OF p-TYPE GaN TO
SUPPLY FLOW RATE OF Mg RAW MATERIAL

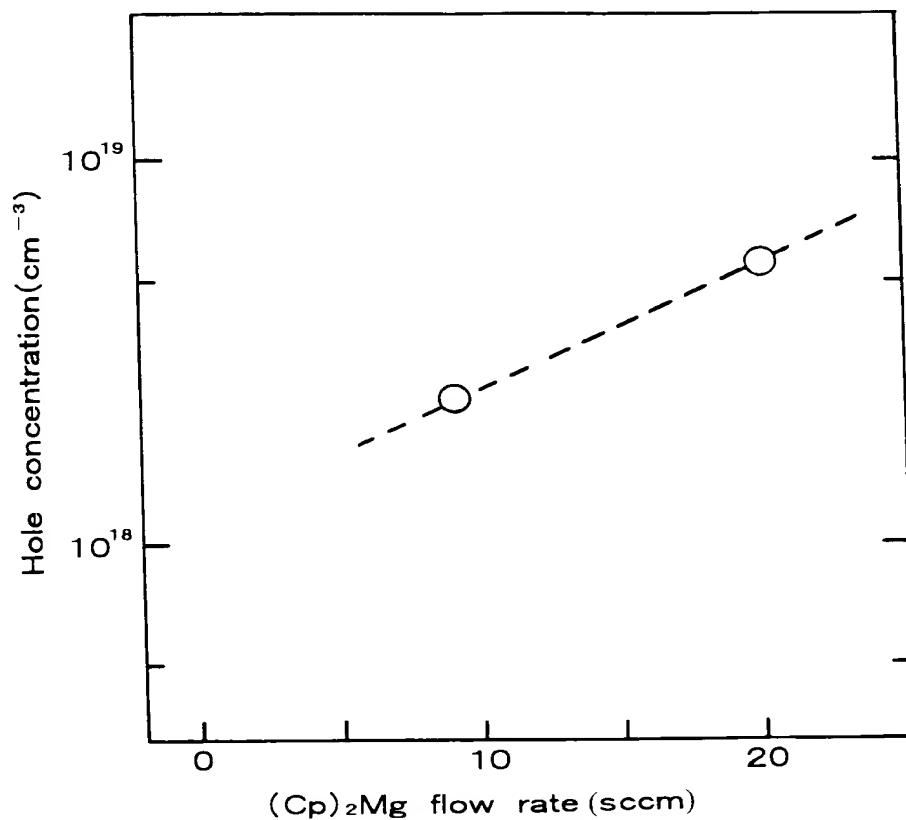


FIG. 8

SCHEMATIC VIEW SHOWING SECTION OF GaN CRYSTAL ALLOWED TO GROW BY SIMULTANEOUS DOPING OF Mg AND Si

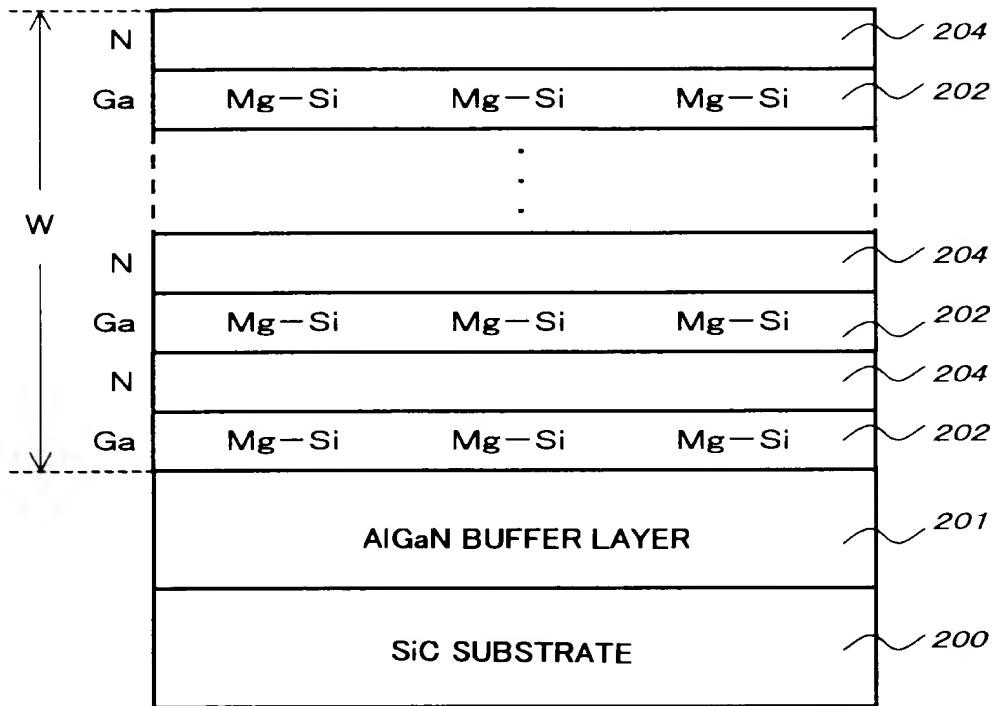


FIG. 10

POSITIVE HOLE CONCENTRATION OF p-TYPE GaN TO
SUPPLY FLOW RATE OF Si RAW MATERIAL IN CASE OF
SIMULTANEOUS SUPPLY OF Mg AND Si RAW MATERIALS

